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THE WHITE HOUSE  
WASHINGTON

October 13, 1977

MEMORANDUM FOR

THE HEADS OF EXECUTIVE DEPARTMENTS  
AND AGENCIES

FROM

STU EIZENSTAT/HARRISON WELLFORD

SUBJECT:

Examination of Opportunities for  
Corps of Engineers' Cooperation in  
Federal Programs and Projects

In conjunction with his efforts to reform water resources policies and projects, the President has asked that an analysis be made of alternative missions and emphases for the Corps of Engineers.

There are several studies which the President's Reorganization Project has undertaken which will consider the fundamental, long-range issues relating to Corps involvement and responsibilities in the Federal government -- an analysis of government administration and services, a study of natural resources functions and a study of defense support functions.

While these studies are proceeding, and before they can be completed, the President would also like to identify high priority projects and programs which might benefit from the cooperation of the Corps of Engineers in engineering and design, construction and construction management. To this end, we request your assistance in supplying the information requested on the attached questionnaire. The questionnaires should be returned by November 15.

To assist you in understanding the capabilities of the Corps of Engineers, Corps officials have prepared a background memorandum which is also attached. We bring your attention particularly to pages 6-8 and 19-20. This memorandum is for background only and does not in any way indicate or pre-judge policy or organizational decisions or directions.

The Corps of Engineers can assist your staff in preparing the data for this questionnaire. The contact person is Don Duncan, 693-6308.

Thank you very much for your cooperation in this effort.

Attachments

AGENCY QUESTIONNAIRE

OPPORTUNITIES FOR COOPERATION WITH CORPS OF ENGINEERS

- I. Agency:
- II. Estimated construction program (\$1000's)  
FY 78 \_\_\_\_\_  
FY 79 \_\_\_\_\_  
per year after FY 79 \_\_\_\_\_
- III. Major construction programs and projects:
- | <u>Short description</u> | <u>Method of Accomplishment</u> |
|--------------------------|---------------------------------|
| 1.                       | 1.                              |
| 2.                       | 2.                              |
| 3.                       | 3.                              |
| etc.                     |                                 |
- IV. Other engineering and design programs or projects (major):  
(Same format as III)
- V. Construction oversight or related regulatory responsibilities (example: Alaska oil pipeline):  
(Same format as III)
- VI. Projects or programs in early stages or proposed projects which might benefit from Corps cooperation (example: Alaska gas pipeline):  
(Same format as III)
- VII. If your agency does not administer or regulate construction or engineering programs, what programs or projects are you aware of which might benefit from Corps involvement:  
(Same format as III)
- VIII. Agency contact person for follow-up:

STATINTL

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ASSESSMENT OF POTENTIAL FOR REDIRECTING  
ARMY CORPS OF ENGINEERS CAPABILITIES  
TO EXECUTION OF OTHER GOVERNMENT PROGRAMS

PURPOSE AND BACKGROUND

President Carter has stated on several occasions that he would like to see the efforts of the Corps of Engineers redirected. For example, on 18 April 1977, as part of his statement on water projects, the President indicated that he would work with Congress to develop policy reforms, including a redirected public works program. He specifically stated that he would be developing suggested redirections for the Corps of Engineers and the Bureau of Reclamation. This paper addresses the priority and proper functions of the Army Corps of Engineers and recommends an approach to redirection of Corps capabilities.

The Corps of Engineers is a unique organization established during the Revolutionary War. Its combined military and civil responsibilities have evolved over a long history of service to the Nation. A key characteristic of this service has been the Corps' ability to mobilize its capability rapidly to meet new and changing assignments and missions and to respond to national defense requirements. Underlying this ability are the size, national scope, and diversity of the Corps' engineering and construction management organization and the effectiveness of the combined military-civilian team at every level within the Corps.

In the past the technical expertise of the Corps of Engineers has been used in the broadened Federal interest in water resources, natural disaster and emergency activities, and special missions--such as surveying the transcontinental railroad routes, protecting national parks, constructing government buildings, and supporting the Space Program. It was mobilized to meet requirements in World War II, to construct the ICBM complexes in the early 1960's, and to support the ABM program in the early 1970's. As the Corps has responded to these challenges, it has continually renewed and updated its contribution to national capabilities through the training and experience gained by its military officers and its career civilian personnel.

The President has made it clear that his administration is committed to a policy of effective stewardship of our public lands and natural resources. This policy includes conservation and multiple use of resources. Conservation has been a goal in the President's energy, environmental, and natural resources programs. Its emphasis is on efficient use of resources with a corresponding deemphasis on structural measures.

Realization of this objective is expected to have a significant impact on the character of the Civil Works Program of the Army Corps of Engineers as it has been oriented. As indicated in Figure 1, the Civil Works Program for FY 1977 is funded at about \$2.6 billion

and involves 29,000 full-time employees. Figure 2 provides a more detailed breakdown of the Civil Works Program. Funds include appropriations plus carryover of unexpended funds from the prior year. Personnel strengths are given as of 30 September 1976.

Operation and maintenance of completed facilities in FY 1977 will require about \$714 million and 15,000 full-time employees. Since the need to operate and maintain completed projects will continue, a shift to nonstructural measures would not seriously modify these requirements. In fact, these requirements will increase somewhat as current projects are completed.

Planning activities (General Investigations), funded at \$79 million with 2,200 full-time employees for FY 1977, could increase or decrease moderately with a shift to nonstructural measures. Experience has shown that the complexities associated with implementation of nonstructural measures require more time, money, and manpower to address the same problem in the planning stage than for structural measures. A significant portion of the current Corps planning effort, particularly its urban studies, results in plans for local implementation rather than for Federal execution. The need for Federal involvement in planning is expected to grow at the same time that Federal execution is trending downward.

The most obvious consequence of a shift to nonstructural measures and away from Federal execution of water resources development would be a reduction in the construction component of such programs. Funding for design and construction of Army Civil Works projects in FY 1977



is \$1,747 million, and there are 9,300 professional, technical, and administrative personnel engaged in this part of the program.

The President's policies regarding conservation and nonstructural solutions are expected to have the greatest effect on flood control and navigation. Since flood control has represented about half of the construction budget for the period FY 1973 through FY 1977, carefully formulated nonstructural programs should result in a substantial reduction in construction. Navigation, which has represented almost 20 percent of the construction budget during the past five years and is expected to increase to about 30 percent of the construction budget during the next five years, may also undergo material reductions. Although significant investments are currently being made in new additions to the system of inland waterways, further major extensions are unlikely. Upgrading and rehabilitation of existing waterway facilities will represent a limited continuing requirement. Although the hydroelectric and multiple-purpose portion of the program could be reduced by the conservation program, it is not expected to be impacted as much as flood control and navigation.

Such reductions in the water resource development construction program will make available for other uses a portion of the design and construction management capability represented by the 9,300 employees currently engaged in these activities within the Civil Works Program. With this capability the Corps performs related functions,

such as financial management, contract administration, real estate, public affairs, and legal services. Thus, the existing national organization of the Corps of Engineers with its decentralized authority constitutes an effective and efficient means for accomplishing a wide range of Federal investment programs. Continued employment of this capability in domestic programs is an economical and otherwise highly advantageous way to have readily available within the Department of Defense a large engineering and construction organization capable of reacting quickly and effectively to military construction requirements in both peace and war. This same capability provides immediate assistance to Federal and local agencies in natural disasters and support for the Civil Defense Program during national emergencies.

The capability freed from water resource project construction could be employed productively within the existing organizational structure in at least three activities:

1. Planning, design, and construction management services for other Federal agencies.
2. Planning, design, and construction management services for other countries; and
3. Direct Federal assistance through redirection of water programs.

SERVICES FOR OTHER FEDERAL AGENCIES

A number of the Federal agencies have competent planning and engineering staffs to support their missions and seldom need assistance from other Federal agencies. Outside assistance might occasionally be needed for unusual peak work loads or specialized expertise not available within the agency. Programs that function effectively and efficiently should not be disturbed.

Some Federal agencies, however, find it desirable and efficient to use the existing capability of other Federal agencies. Section 219 of Public Law 89-298 authorized the Chief of Engineers, under the supervision of the Secretary of the Army, to contract with Federal agencies desiring the services of the Corps. The key to this activity is efficiency. The greatest potential for cost savings lies in planning and engineering requirements that are relatively short in duration, vary widely in magnitude over time, or are of such limited scope that they do not warrant the establishment of in-house capability. In addition, specialized requirements may warrant use of existing expertise in other Federal agencies. There is also growing concern that a lack of engineering expertise in some Federal grant programs may be adversely affecting the efficiency and effectiveness of the programs. In recognition of this situation EPA and the Corps have already agreed that it would be highly desirable for the Corps to provide substantial support to EPA in the management and oversight of the Section 201 waste

treatment plant construction grants program. Inclosure 1 describes briefly some of the work accomplished by the Corps of Engineers for other agencies.

Some agencies have required only planning assistance while others have sought and received full program support of design, construction, real estate, and necessary allied services. Services performed are tailored to fit the needs of the customer. In each instance, the supported agency and the Corps sign a formal agreement which details the requirements of the program, costs, and manpower allocation. Copies of two agreements with other agencies are attached as Inclosure 2.

It is neither necessary nor desirable to accomplish all engineering design and construction management through a single construction agency or entirely with Federal employees. The Corps itself makes extensive use of architect-engineers, and construction management firms play a significant role in some Federal programs. However, the list of past services for other agencies is a clear indication that much can be accomplished by using the existing capability within Federal agencies. Recently the expertise of the Corps might have been used as an alternative to the creation of new engineering capability for oversight of the Alaska Pipeline project or for implementation of the Regional Reorganization Rail Act of 1973. Establishment of the Department of Energy will provide an opportunity to review the capability of other

Federal agencies as an alternative to building up the capability of that agency. As reflected in Inclosure 1, the Corps of Engineers is already performing engineering services for organizations that will be included in the Department of Energy.

The following list illustrates the type of activities that match existing capabilities within the Corps.

Department of Energy: test facilities; demonstration projects for solar and other types of energy projects; coal slurry pipelines; hydroelectric generation from existing large impoundments; small hydroelectric and run-of-river projects.

Environmental Protection Agency: solid waste management; wastewater treatment facilities.

Department of the Interior: Trans-Alaska pipeline; stripmine restoration and acid drainage abatement.

Department of Commerce: local public works program

Department of Justice: construction of adult institutions

Veterans Administration: construction of hospitals and extended care facilities.

SERVICES FOR OTHER COUNTRIES

Planning, design, and construction management services for other countries are not new, as evidenced by the Army Corps of Engineers participation in programs for the Government of Saudi Arabia. The association of the Corps of Engineers with projects in Saudi Arabia started in 1951 with construction of the Dhahran military airfield, using U. S. funds. Additional U.S.-funded projects followed, of which the most notable was the AIA-award-winning Dhahran Civil Air Terminal located on the same airfield. This structure, completed in 1961, was financed with U. S. AID funds. Following these early projects, the Government of Saudi Arabia requested the U. S. Government to make available the services of the Corps to accomplish certain programs which the Saudis wished to undertake using their own funds. The U. S. Government agreed to this proposal, and the terms of agreement for such programs were defined in a series of formal government-to-government agreements. The first of these agreements, known as the Television Agreement, provided for the construction of a country-wide black and white television system, as well as the training of Saudi Arabian nationals to operate it. An exchange of notes in December 1963 and January 1964 between the American Embassy at Jidda and the Saudi Arabian Ministry of Foreign Affairs formally ratified this agreement. Construction of the system commenced in 1964 and was completed in 1971 at a cost of approximately \$28 million. The TV agreement was amended to provide a

radio studio complex in Riyadh. This facility was designed, constructed, and equipped from 1967-1974 at a cost of \$14.7 million.

The Corps is presently involved in four programs in Saudi Arabia with an estimated total cost of \$7.5 billion. These programs could increase in value to approximately \$20 billion with approval of other projects presently being planned. The Saudi Government funds the total cost of all programs. The four programs are broadly categorized as: The "Engineer Assistance Program" (EAA); the "Saudi Ordnance Corps Program" (SOCP); the "Saudi Naval Expansion Program" (SNEP); and the "Saudi Arabia National Guard Modernization Program" (SANG).

Completion of these programs will require Corps presence in Saudi Arabia until 1985 or longer. The Engineer Assistance Program was initiated by request from the Department of State based on a country-to-country agreement. The other three programs are being accomplished on a "Dependable Undertaking" basis under the U.S. Foreign Military Sales Act of 1968 and are based on Memorandums of Understanding.

There is a growing interest by other countries in the natural resources expertise of the United States. For example, the Government of Nigeria has recently expressed an interest in obtaining assistance with its inland waterways program. Potential activities include assistance to the Waterways Division of the Ministry of Transport to:

- a. Supervise, monitor, and review the results of a 24-month program to dredge shoaled portions of the Niger-Benue River system during low water seasons;

- b. Plan the follow-on phase of waterway improvement; and
- c. Review design and construction bids for river ports and boatyards.

Many developing countries of the world have a need to supplement their own natural resources expertise. Assistance from agencies such as the Corps would provide an opportunity not only to improve their ability to accomplish their development objectives, but also to employ our experience to avoid many undesirable impacts of such development. A specific example might be the integration of long-term environmental consequences of alternatives into the decision process. These countries are, of course, interested in becoming self-reliant in all phases of natural resources. The opportunity to influence attitudes toward natural resource conservation and development may be brief, but the potential benefits to our world environment are enormous. An experienced interdisciplinary team of water resources experts could provide this valuable service.

In addition to technical services in water resources, the design and construction management capability of the Corps has been used for projects such as the following:

Agency for International Development: design and construction of 375 miles of highways in Afghanistan; design and construction of Mehrabad, Iran airfield and the Chisimaic, Somali Republic deep sea port.



Government of Libya: design and construction of airfield support facilities in connection with Air Force Foreign Military Sales.

Government of Iran: design and construction of housing projects, funded completely by the Government of Iran.

Military Assistance Program: design and construction of major, heavy construction in six countries. Typical projects include airfields, communication facilities, and military cantonments.

REDIRECTION OF WATER PROGRAMS

As a nation we face many serious challenges. Many of the water resources services of the future will have to be related to an urban-oriented society, with more than three quarters of the population living in politically independent, but contiguous, urban-suburban concentrations. The demand for water-related public works will continue to grow, but in meeting it we must place our principal emphasis on multiple use and wise management of our resources, through projects and other means, for human ends, and on services rendered rather than numbers of projects built. The difficult problem of marshalling the needed natural resources for the urban areas is matched by an equally difficult task of coping with the disposal of the residue following use of these resources.

The President, in his message on the environment, referred to energy conservation, reclamation of stripmined lands, and rehabilitation of our cities as environmental measures whose time has come. Each is basically an urban problem or a problem associated with obtaining resources for the urban community. The highly decentralized national organization of the Corps of Engineers provides an excellent structure for providing services to urban entities as well as implementation of direct Federal assistance programs.

Current water shortages in the West and in the East are pointed reminders of the importance of both water conservation and development of dependable sources of supply. Their priority will escalate as our population and economy grow. Some of the water shortage is very real, but other parts are the result of outdated policies or the consequence of institutional and political issues. The role of the Federal government in the allocation of this resource is expected to increase as the complexity of the issues escalates.

If water conservation is to be an effective component of satisfying future water needs, a Federal program of technical assistance will be needed. The objectives of such a program would be to (1) develop improved drought prediction technology; (2) develop improved guidelines for assessing the reliability of water sources; (3) provide specific problem-related planning, design, and construction information; (4) develop and make available general information on technologically and economically feasible design and construction methods and procedures for water conservation; (5) serve as an expert disinterested evaluator of the projected needs and available resources for specific areas; and (6) better educate the public concerning the economic and environmental merits of water conservation.

Addressing future water needs via narrow studies for each political entity is no longer adequate. Experience during the last decade has shown that many metropolitan areas are unable to cope with the regional

planning demands and will face serious social and economic impacts during future droughts. Regional water supply studies by a Federal planning agency may be needed to assist in resolving these problems.

Mining and related activities have already adversely impacted about 13,000 miles of navigable rivers and their tributaries, and approximately 4.4 million acres of land have been disturbed by surface mining. A program of abatement of pollution and restoration of disturbed lands is needed. The need for appropriate sites for wastewater sludge could be tied to rehabilitation of mine spoil areas. The Corps of Engineers has the capability to make a positive contribution in both of these areas.

Significant technical assistance is now available to urban communities with respect to potential flood hazards. Much more is needed, however, before local interests can accomplish effective land use planning. Of particular concern are the physical, socio-economic, and environmental implications that future land use changes on lands outside the floodplain have on flood hazards. The Corps of Engineers is developing the technology needed to provide these data.

Another urban problem relates to the shortage of outdoor recreation opportunities for residents of large cities. Many existing Corps of Engineers projects present opportunities to promote environmental enhancement of local communities and to provide readily accessible urban outdoor recreation experience.

There are many opportunities for Federal agencies to join forces in addressing the total welfare of the people. A specific example of this is in the post-disaster rehabilitation program of social agencies and the floodplain management program of the Corps of Engineers. Joint HUD-Army efforts to reestablish communities destroyed by natural disasters can be accomplished in a socially acceptable manner without subjecting the communities to continued flood threats. The Tug Fork situation represents a current challenge in this area.

A water resource problem of national scope is dam safety. The 1976 Corps of Engineers Inventory Report authorized by Public Law 92-367 reveals that approximately 20,000 of the more than 49,000 Federal and private dams of the Nation are so located that failure could result in loss of life and appreciable property damage. The National Dam Safety Program recommended by the Assistant Secretary of the Army (Civil Works) in November 1976 included the establishment of guidelines, inspection of all dams which are potentially hazardous, remedial work where needed, establishment of effective, ongoing programs in each state, and maintenance of a national inventory of dams. The Executive Branch and Congress are still addressing the proper roles of Federal, state, and local government and private enterprise in assuring dam safety. The Nation's largest and most proficient organization in the design and construction of dams is the Corps of Engineers. It would appear

only prudent to take advantage of this existing organization in providing whatever technical services are necessary to further the role finally established for the Federal Government in the National Dam Safety Program.

Several agencies are now engaged in planning, design, construction, and operation and maintenance of water resource development projects contributing to the accomplishment of their respective departmental missions. In a number of cases the Corps of Engineers has performed design and construction of projects for other departments involved in water resource development. As the trend from structural to non-structural solutions continues and the overall size of the construction effort diminishes, it may be efficient for the Corps of Engineers, with its national organization and complete range of capabilities, to perform a greater share of the design and construction of water projects.

Inclosure 3 provides additional information on several of the activities discussed above.

CAPABILITIES

The 39,000-man planning, design, construction management, and operation and maintenance force of the Corps is decentralized into 14 division, or regional offices, and 39 self-contained and fully staffed district offices covering the entire continental United States, Alaska, Hawaii, Europe, the Middle East, the Pacific Ocean area, and the Far East. The Chief of Engineers directs and manages field activities through a chain of command extending down through the Corps of Engineers officers who serve as division and district engineers.

Under the guidance of the Office of the Chief of Engineers in Washington, the divisions and districts in the field have the following capabilities to plan and carry out large investment programs:

a. Planning. Assessment of problems and needs; collection and analysis of economic, environmental, and social data; formulation and comparison of alternative plans; public involvement through liaison with state and local officials, questionnaires, workshops, and public meetings; preparation of reports and environmental impact statements; coordination with Federal, state, and local agencies; contracting for planning functions and supervision and review of contract performance results.

b. Engineering. Collection and analysis of engineering data; design analysis; preparation and comparison of alternative designs; preparation of design memoranda, plans and specifications, and cost estimates; preparation of project operating plans; coordination of

engineering designs and project operating plans with Federal, state, and local agencies; engineering oversight and review of project construction and operation; contracting for engineering functions and supervision and review of contract performance and results.

c. Construction Management. Planning and scheduling of project execution; preparation and letting of construction contracts; supervision and inspection of contract performance and results; administration of claims; execution of dredging and minor construction with Government forces.

d. Real Estate. Determination of real estate requirements; planning and scheduling of acquisition; acquisition, including ownership determination, appraisal, negotiation, closing, and condemnation if required; management, including outleasing, and disposal.

e. Financial Management and Procurement. Preparation and defense of programs and budget estimates; receipt, allotment, disbursement, accounting, and audit of funds; procurement of goods and services.

f. Counsel. Legislation; environmental law; regulatory functions; intergovernmental relations and contracts; patents; labor relations; contract appeals; litigation and specialization in engineering and construction law.



These activities are accomplished by a broad range of professional and skilled personnel. The following is a breakdown of the work force by general categories:

Managers	1,400
Engineers	8,400
Other Professionals	2,300
Technicians	9,800
Skilled Tradesmen	11,900
Clerical Personnel	<u>4,800</u>
Total	38,600

In the execution of its Military Construction and Civil Works missions the Corps employs a combination of in-house and contractual effort designed to make the optimum use of the capabilities of both the Government and the private sectors. The mix varies from one program to another. With its long and close working relationship with architect-engineers, consultants, and construction firms, the Corps would tailor its effort in support of other Federal agencies, foreign governments, or new programs just as it does its current work.

CRITERIA FOR USE OF CORPS CAPABILITIES

The decision to use Corps of Engineers capabilities in other Government programs should depend upon the following considerations:

- a. Does the work to be done match the Corps' capabilities?
- b. Does the agency responsible for the program have sufficient existing capability of this type?
- c. If such capability is not sufficient, does the nature, size, and duration of the program justify building up a permanent capability within the responsible department to carry out the work?
- d. What portions of the work should be done by Government personnel because of legal, fiscal, ethical, or public interest considerations?
- e. Considering both the portions of the work which should be done by Government personnel and the portions which may be done by either the Government or private firms, what combination of temporary buildup within the responsible department, use of the Corps of Engineers, and use of private firms will be most advantageous to the country?

The answers to these questions may be used both to assess the potential for using the Corps' capabilities throughout the Government and to establish priorities for applying these capabilities once the potential has been determined. In so doing it will be necessary to consider variations in the program levels of the construction and grant agencies, the geographical distribution of the work, any special capabilities required, and the degree of Federal involvement necessary for effective achievement of the Administration's goals.

# C.E. PROGRAMS

## AVAILABLE FUNDS AND PERSONNEL - FY 1977

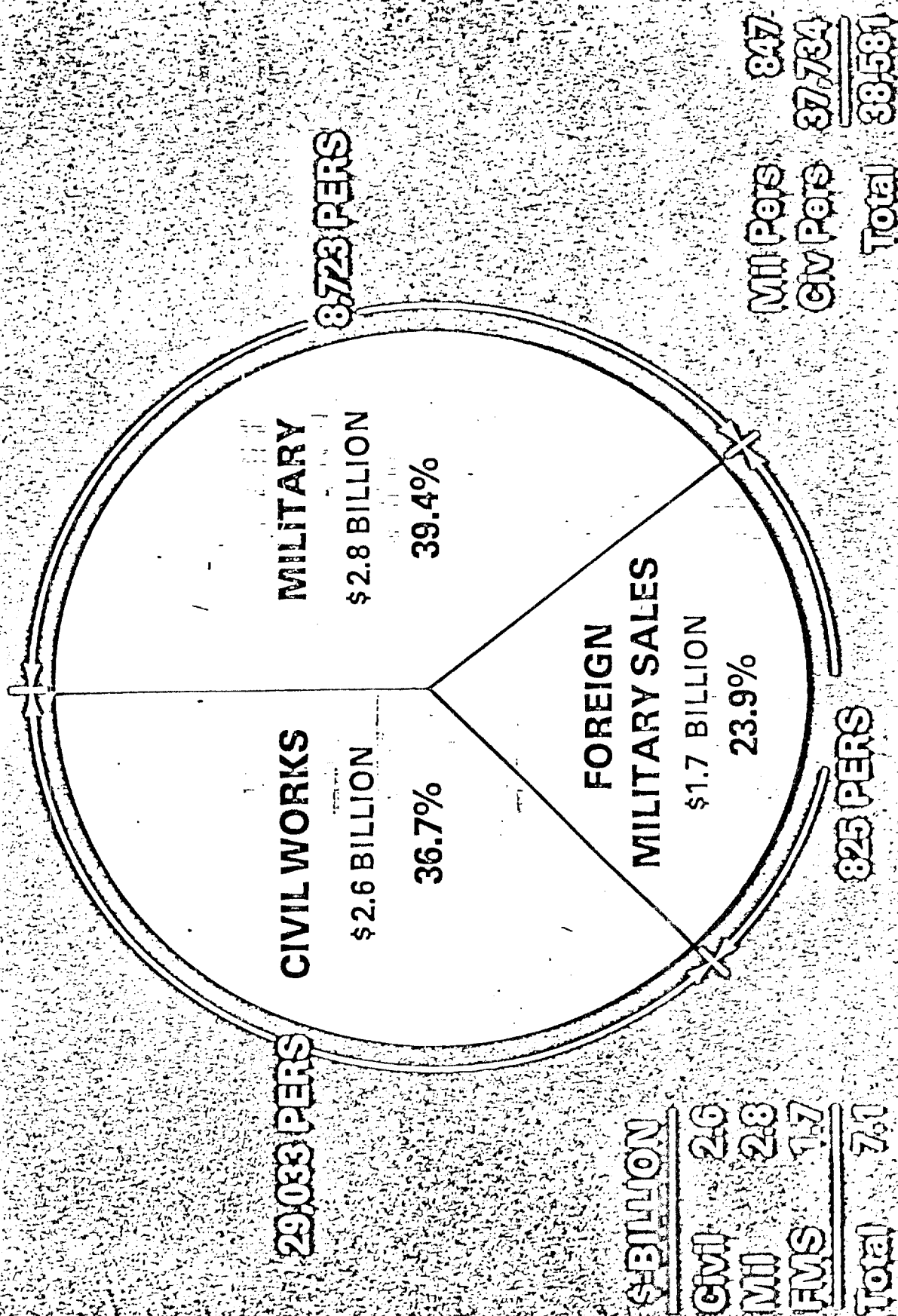


FIGURE 1

# CIVIL PROGRAM FY 1977

**MISC**  
\$114 MILLION  
2,439 PERS

**GENERAL INVESTIGATION**  
\$79 MILLION  
2,221 PERS

**O&M,G**  
\$714 MILLION  
15,061 PERS

**CONSTRUCTION GENERAL**  
\$1,747 MILLION  
9,312 PERS

Navigation	\$ Million	%
Flood Control	290	17
Hydro-M/P	905	52
Misc	472	27
	80	4
	<u>1747</u>	<u>100</u>

Mil Pers	283
Civ Pers	28,750
Total	<u>29,033</u>

**\$ MILLION**  
Total \$2,654

FIGURE 2

EXAMPLES OF WORK ACCOMPLISHED FOR OTHER FEDERAL AGENCIES

Following are a few examples of the variety and complexity of construction contracts executed under the supervision of the Corps.

For the Space Program the Corps has supervised the design and construction of:

The Vertical Assembly Building and Launch Complexes at Cape Kennedy.

The Manned Spacecraft Center at Houston -- and

The Mississippi Test Facility for test-firing stages of the Saturn V vehicle.

In Alaska, the construction of 64 miles of multiproduct pipeline including a 2-1/2 mile hardrock tunnel.

At Wright-Patterson Air Force Base, Dayton, Ohio, a series of complex and sophisticated laboratory facilities for development in the fields of optics, laser, sonics and avionics.

In addition to the Defense program work for others, some examples of work done or being done by the Corps for other government agencies and a few of the foreign governments follow:

United States Postal Service - Real estate, design and construction programs in excess of \$950 million through Fiscal Year 1974, for bulk mail centers and service facilities. In addition, the Corps supervised the lease and rental of postal facilities with annual payments of \$154 million for 27,900 leased buildings and rental for space occupied in 13,400 buildings.

General Services Administration - Construction inspection for several post office and federal office buildings, the National Science Library at Beltsville, Maryland, and rehabilitation of numerous federal office buildings.

Public Health Service - Design review and construction inspection services for the Regional Water Pollution Control Laboratory and the Arctic Health Research Center, both in Alaska.

Advanced Research Projects Agency - Design and construction of a solar observatory and tracking station in Hawaii, requiring the housing of highly technical equipment.

In addition to the above, the following agencies have been provided Real Estate support by the Corps:

Department of the Interior (National Park Service)

National Security Agency

Atomic Energy Commission

Office of Economic Opportunity

Small Business Administration

In the areas of special studies, the Corps-directed Engineering Feasibility Studies for a sea-level canal across the Isthmus of Panama, under the auspices of the Atlantic-Pacific Interoceanic Canal Study Commission, was one of the most comprehensive studies of this nature ever accomplished.

INTERAGENCY AGREEMENT  
BETWEEN THE  
U.S. ARMY CORPS OF ENGINEERS  
AND THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY

I. The purpose of this agreement is to specify the arrangements under which the U.S. Army Corps of Engineers (Corps) will serve in an advisory capacity on engineering management and related technical matters to the Environmental Protection Agency (EPA) in administering its municipal wastewater treatment works construction grants program.

II. SCOPE OF WORK:

Corps employees will conduct monitoring (overview) inspection of municipal wastewater treatment works and provide advisory reports on engineering management aspects of the work to Regional Administrators and auditors. The inspections are intended to assure the adequacy of supervision and administration of the construction by the grantee and its agents of the construction grant program. If agreed to in local supplemental agreements, other engineering services may be provided.

III. PROVISIONS:

Although this agreement is executed at the departmental level of the Agencies, the primary administration of the agreement will be at the regional level. The Regional Administrators will work through designated Division Engineers, as follows:

Region I	- New England Division	Region VI	- Southwest Division
Region II	- North Atlantic Division	Region VII	- Missouri River Division
Region III	- North Atlantic Division	Region VIII	- Missouri River Division
Region IV	- South Atlantic Division	Region IX	- South Pacific Division
Region V	- North Central Division	Region X	- North Pacific Division

It is recognized that the level of support will be limited by the availability of Corps personnel and EPA funds.

This agreement will be carried out through annual supplemental agreements negotiated between EPA Regional Administrators and their designated Division Engineers. These supplemental agreements will serve as the means for EPA to obligate funds and the Corps to assess its capacity, and will specify:

1. The tentative location(s) at which the services will be provided.
2. The extent of the services to be provided by Corps.
3. Instructions regarding the submission of reports.

4. The time period covered.
5. The names, addresses and telephone numbers of the individuals who serve as project officers for both Corps and EPA for the work covered by the work order.
6. The estimated cost of the services and instructions regarding the submission of Corps reimbursement requests for payment by EPA.

The services to be provided under the supplemental agreements will be handled through the issuance of work orders which will include:

- (1) an authorization for Corps personnel to represent EPA and
- (2) the identity (name, position, address, telephone) of the grantee point-of-contact with whom the inspector is to arrange the details of the inspection, including access to the construction site, appropriate personnel, and pertinent records.
- (3) an identification of the documentation to be submitted to EPA with the report describing the services which have been performed, what the inspection showed, and Corps recommendations, if any.

Monitoring inspections shall be conducted by experienced construction engineers or construction representatives, GS-11 or above in grade.

#### IV. RESPONSIBILITY:

The Corps is not expected to exercise any authority over Grantees, contractors or engineering consultants; hence, it will not have any responsibility for the implementation, adoption or enforcement of its recommendations. The Corps of Engineers shall, whenever possible, coordinate the release of information contained in reports prepared for EPA with the Regional Administrator.

#### V. TERM OF AGREEMENT:

This agreement will continue until amended or terminated. Either party may terminate the agreement by providing 90 days advance written notice.

#### VI. FUNDING:

Funds will be provided by supplemental agreements described in Section III, Above.

Charges to EPA for work performed under this agreement will be based on direct costs and overhead computed in accordance with established Corps accounting procedures.



The Corps will request reimbursement by Standard Form 1080, submitted to the appropriate EPA Regional Office. Each request for reimbursement will itemize all performance costs and will cite the EPA accounting information specified in the supplemental agreement.

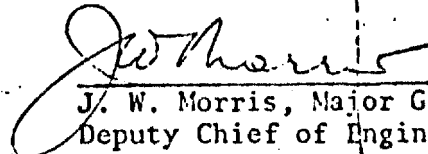
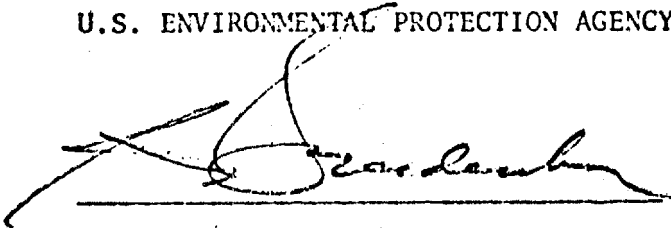
The EPA Regional Office will reimburse the appropriate Corps Office for the costs associated with each work order.

VII. AUTHORITY:

The authority for this agreement is the Economy Act of 1932, 31 USC 686.

U.S. ENVIRONMENTAL PROTECTION AGENCY

U.S. ARMY CORPS OF ENGINEERS

  
J. W. Morris, Major General, USA  
Deputy Chief of Engineers

DEC 10 1975

(Date)

24 Nov 1975

(Date)

CE-NASA AGREEMENT

COOPERATIVE AGREEMENT

BETWEEN THE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AND THE

CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

ON CONSTRUCTION

A. AUTHORITY

This agreement is made pursuant to Public Law 85-568 (72 Stat. 426).

B. PURPOSE

The purpose of this agreement is to establish the procedures under which the construction organization of the Corps of Engineers, Department of the Army, may be utilized to perform design or construction services for the National Aeronautics and Space Administration (NASA) at Huntsville, Alabama, Cape Canaveral, Florida, and elsewhere, as desired by NASA.

C. POLICY

It is the policy of the Chief of Engineers to make available the services of his construction forces to perform design or construction services at such places as desired by NASA.

D. PROCEDURES

1. General

Procedures are established herein for the following categories of design and construction projects:

a. Category 1. Design or construction of future projects (primarily in support of Project Saturn) currently underway at Huntsville, Alabama, and Cape Canaveral, Florida, that are to be transferred to NASA in accordance with the Army-NASA Transfer Plan, December 11, 1959, and the President's Transfer Plan, transmitted to Congress on January 14, 1960, effective March 15, 1960, 25 Fed. Reg. 2151 (1960).

b. Category 2. Design or construction of future projects for the George C. Marshall Space Flight Center (Marshall Center) at Huntsville, Alabama, and at Cape Canaveral, Florida, as desired by the Director, Marshall Center.

c. Category 3. Design or construction for NASA, at such other places as desired.

2. Procedures for Category 1 Projects Prior to Date of Transfer

a. Effective Date of Transfer. The effective date of transfer to NASA of Army projects currently under design or construction shall be as mutually agreed between the Director, Marshall Center or his designee and the Commanding General, Army Ordnance Missile Command (AOMC), or his designee, in accordance with the Army-NASA Transfer Plan, December 11, 1959.

b. Design. Existing procedures for furnishing criteria, performing design, and providing functional review and approval of plans will remain in effect until the effective date of transfer. Subsequent to that date, procedures shall be as indicated below for Category 2 and 3 projects.

c. Construction. The Chief of Engineers, through his appropriate District Engineers, shall be responsible for supervision and inspection of the construction of those Army projects currently authorized that are to be

with the approved plans and specifications to the Commanding General, Army Ordnance Missile Command (AOMC) until the effective date of transfer of such responsibility to NASA. Subsequent to that date, procedures shall be as indicated below for Category 2 and 3 projects.

d. Changes. Until the effective date of transfer, instructions for changes in design and/or construction will be transmitted by AOMC to the appropriate District Engineer in accordance with existing procedures.

e. Funding. Funds for design and/or construction shall be furnished by AOMC, until the effective date of transfer.

3. Category 1 Projects Subsequent to the Date of Transfer

Subsequent to the date of transfer of responsibility to NASA, the procedures given below for Category 2 and 3 projects shall be applicable to Category 1 projects.

4. Procedures for Category 2 and 3 Projects

a. General. The procedures applicable to design and construction of Category 2 and 3 projects differ only in that the request for services originates with the Director, Marshall Center, or his authorized representative in the case of Category 2 projects, while the request originates with the Director of Business Administration, NASA, or such other persons as he may authorize, in the case of Category 3 projects. Thus, with this exception, the procedures given below shall be equally applicable to Category 2 and 3 projects as well as to Category 1 projects subsequent to the effective date of transfer to NASA.

b. Request for Design and Construction Services.

The Director of Business Administration, NASA, or his designee, and the Director, Marshall Center, or his designee, may make requests for design or construction services direct to the Chief of Engineers or to the Division or District Engineer in whose area of responsibility the project is located. Requests shall be in writing, shall describe the scope of the services desired and the proposed location of the construction, the funding limitation, and shall designate the NASA individual or agency responsible for furnishing design criteria or construction plans and specifications. The Corps of Engineers agency receiving the request shall promptly acknowledge the request in writing, indicating the Engineer agency responsible for furnishing the requested services.

c. Design Standards and Criteria.

The NASA designee shall furnish design standards and criteria and any descriptive material or sketches needed to define the general quality, space allocation, functional layout and operating characteristics to be incorporated into the design of the project, to the designated Engineer agency.

d. Design.

Based upon the design standards, criteria, and functional requirements furnished by NASA, the designated Engineer agency shall cause designs to be prepared by contract or Government personnel and if desired by the NASA designee, shall submit to him, for approval, single line preliminary drawings and outline specifications indicating the general quality of construction, proposed space allocation, functional layout and operating characteristics. Subsequent development of project drawings and

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specifications shall be done under the supervision of the designated  
Engineer agency so as to comply fully with the requirements of NASA.

e. Siting.

The NASA designee shall be responsible for obtaining the necessary real estate rights for the project. The designated Engineer agency shall furnish services in connection with site selection or acquisition of the necessary real estate rights if so requested by the NASA designee. Siting of the project shall be in accordance with sketches or other information furnished by the NASA designee. Site plans shall be submitted to the NASA designee for approval.

f. Construction Contracting.

The designated Engineer agency shall be responsible for contracting for construction of projects requested by the NASA designee. Contracts will be based upon plans and specifications prepared by the designated Engineer agency in accordance with paragraph 4d above, or upon plans and specifications and such other requirements as may be set forth by the NASA designee in the construction request or supplementary written request. Where applicable, the designated Engineer agency shall include in the contracts to be let for NASA work, the NASA Property Rights in Inventions Clause.

g. Construction Supervision and Inspection.

The designated Engineer agency shall be responsible for supervision and inspection of the construction to insure that the project is built in accordance with the plans and specifications. If desired, the NASA designee may perform general surveillance of the construction in progress, but will report all alleged deficiencies or desired changes to the Engineer

h. Changes.

If at any time during the construction, changes are necessitated by changes in mission, requirements, function of the project, or otherwise, the NASA designee shall so advise the designated Engineer agency giving the scope of the desired changes. The said Engineer agency shall modify the construction contract to comply with the requirements of the NASA designee.

i. Progress Reporting.

The designated Engineer agency shall furnish such information on progress of design and construction at such frequency as shall be requested in writing by the NASA designee.

j. Final Acceptance of the Project.

Upon completion of a project, representatives of the NASA designee and the designated Engineer agency shall make a joint inspection of the project to determine that the work has been completed satisfactorily. The designated Engineer agency shall correct by appropriate action under the contract any construction deficiencies resulting from failure to comply with the plans and specifications. Changes desired by the NASA designee that are outside the scope of the contract plans and specifications shall be made by the said Engineer agency only upon approval and funding by the NASA designee. When the project is accepted by the NASA designee, NASA shall assume maintenance thereof. Transfer of accountability from the said Engineer agency to the NASA designee shall be by execution of ENG Form 290. Deficiencies in the construction, if any, shall be listed on the reverse of the ENG Form 290 for necessary corrective action by the contractor on order of the said Engineer agency. However, this shall not apply to facilities provided transfer prior to

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final completion can be accomplished under the terms of the contract  
and is requested by the NASA designee.

k. "As-Built" Plans, Shop Drawings, and Operating Instructions.

At the time of transfer of the completed project to NASA, the designated Engineer agency shall furnish to the NASA designee the original plans annotated to show the facility "as-built", final approved shop drawings, copies of the construction contract, and other pertinent documents including such information on operation and maintenance of the equipment as has been furnished by the contractor under the provisions of the contract.

5. Funding.

In accordance with paragraph 2F of the "Agreement between the Department of Defense and the National Aeronautics and Space Administration concerning principles governing reimbursement of costs", dated November 12, 1959, signed by the Administrator, NASA, and the Deputy Secretary of Defense, the costs of design, construction, site selection, or real estate assistance undertaken by the Corps of Engineers at the request of NASA shall be charged to NASA funds on the basis of "project costs", including such additional funds required to pay contractor claims arising under the provisions of the contracts. NASA funds shall be transferred to the Department of the Army by Standard Form 1151. If additional funds are required for any project, the NASA designee shall be so advised. His consent shall be obtained and the additional funds furnished prior to incurring any additional obligations. Excess funds remaining at the completion of the project shall be returned to NASA.



This agreement shall be effective immediately upon signature of both parties below.

/s/  
E. C. ITSCHNER  
Lieutenant General, USA  
Chief of Engineers  
Department of the Army

DATE: April 2, 1960

/s/  
ALBERT F. SIEPERT  
Director of Business  
Administration  
National Aeronautics and  
Space Administration

DATE: April 4, 1960

Space Administration and the Corps of Engineers, Department of the Army,  
on Construction (April 1960). Paragraph D5 of this agreement is changed to:

D5. Funding.

\* In accordance with paragraph 2F of the "Agreement between the Department of Defense and the National Aeronautics and Space Administration concerning principles governing reimbursement of costs", dated November 12, 1959, signed by the Administrator, NASA, and the Deputy Secretary of Defense, the costs of design, construction, site selection, or real estate assistance undertaken by the Corps of Engineers at the request of NASA will be reimbursed by NASA on the basis of "project costs", including costs of settling contractor claims arising under the provisions of the contracts. For this purpose project costs are the customary charges used by DOD for charging DOD sponsored non-military projects, which include applicable engineering and design services and construction expenses whether by contract or hired labor, costs of supervision and inspection of construction, and overhead at the current Engineer district rate for civil activities. Labor costs include surcharge rates established to cover employees' leave and government contributions for insurance, health benefits, and retirement. Work will only be undertaken when NASA has assured in writing the availability of funds for reimbursement. If additional funds are required for any project, the NASA designee shall be so advised. His consent shall be obtained, and an availability of funds statement furnished, prior to incurring any additional obligations."

/s/  
KEITH R. BARNEY  
Major General, USA  
Acting Chief of Engineers  
Department of the Army

/s/  
ALBERT F. SIEPERT  
Director of Business  
Administration  
National Aeronautics and  
Space Administration

DATE: ~~10 May 1961~~ ~~Approved For Release 2002/02/13 : CIA-RDP80-00473A000300040009-0~~ DATE: 7 June 1961

Approved For Release 2002/02/13 : CIA-RDP80-00473A000300040009-0  
Amendment 2. Cooperative Agreement between the National Aeronautics  
and Space Administration and the Corps of Engineers, Department of  
the Army, on Construction (April 1960), as amended.

Paragraph D5 of this agreement is amended by deleting the  
following phrase from the second sentence thereof: "at the current  
Engineer district rate for civil activities."

This amendment is effective as of 1 December 1961.

/s/  
W. K. WILSON, JR.  
Lieutenant General, USA  
Chief of Engineers

/s/  
JAMES E. WEBB  
National Aeronautics and  
Space Administration

DATE: 16 November 1961

DATE: 6 December 1961

DIRECT FEDERAL ASSISTANCE PROGRAMS

Regional Water Supply. -

The Nation is periodically confronted with droughts of short-term emergency nature which provoke public anxiety for a time. The Nation is also confronted with long-term predictions of water shortages. As an instrument of Federal policy, the Corps of Engineers finds itself constrained in dealing with both emergency situations and longer range droughts, particularly the latter.

The Corps might respond in two concurrent ways: For the longer range, authorization for the Corps to study regional water supply needs and to make recommendations thereon to the Congress may be warranted. This authorization should resemble the Northeastern United States Water Supply Study authority and the intent would be to remove the constraints of the Water Supply Act of 1958 and establish as policy the Federal interest in single purpose water supply projects and related conveyance facilities to wholesalers. For the shorter range, a general authority is needed for the Chief of Engineers to exercise some latitude in reallocating storage at existing projects within a specific limitation to meet emergency situations. This authority should be discretionary and should be triggered by a Presidential declaration that the area is facing extreme conditions due to deficient water supplies.

Mine Pollution Abatement. -

Mining and related activities have adversely impacted upon about 13,000 miles of the Nation's navigable rivers and their tributaries.

Numerous public facilities have been impaired. Fifty-six Federal water resource projects have been significantly affected. The obvious economic effects include reduced recreational values, impaired water supplies, metal and masonry corrosion and deterioration, reduced storage capacities at impoundments, and degraded fish and wildlife resources, aesthetics, and quality-of-life in these areas. The major problems arise from mining-related sedimentation and chemical pollution originating upstream from Federal water resource projects and other Federal lands. Although active mining operations and abandoned mines have adverse effects, the most prominent problems are traceable to derelict lands that remain from prior mining operations, primarily coal mines.

Surface mining has disturbed approximately 4.4 million acres of land in the United States. Underground mining, processing and allied activities have affected land and water resources as well. A large portion of the acreage is located in watersheds of Federal water resource developments and Federal lands. About 40 percent remains unreclaimed and there are no legal instruments available to ensure reclamation. To prevent further land and water damages, reshaping, revegetation or water-control measures would be required. But, 90 percent of the problem-causing acreage is privately owned. Nevertheless, there is substantial Federal interest in reclaiming the acreage due to its profound adverse effects on Federal lands and projects.

The program should include development of strip mined-land restoration and acid mine drainage abatement plans, and provide for construction, operation, maintenance and surveillance of small pollution abatement projects conceived as internal parts of unified abatement plans for Federal projects or project services. Abatement of pollution and restoration of disturbed lands will increase the viability of both land and water resources. Positive long-term effects will outweigh any short-term negative impacts which might be generated during construction. The commitment of manpower and resources to the development of the demonstration projects would result in improved Federal investments as well as improvements to project lands and water.

Management of Wastewater Sludges. -

Treatment of wastewater flows has resulted in the production of vast quantities of sludge. The amount continues to grow as new community sewer facilities become available and existing levels of treatment are upgraded. Land disposal areas for wastewater sludge are becoming scarce and more difficult to manage. Ocean dumping is being curtailed. Transport to a neighboring political jurisdiction may be warranted in some instances, but politically unacceptable to the "recipients." Numerous research projects have been conducted since 1915 to find ways and means to manage sludges.

The Corps of Engineers could initiate a program for management of wastewater sludges which would be two-pronged: The early phase would

focus on rehabilitation of "trouble" disposal areas. The second phase would be directed toward rehabilitation of mine spoil areas, with initial studies of transporting sludge, by barge and train, to the affected areas. Sludge may be a very low value material, but it is produced in huge quantities by everyone, and a policy favoring government subsidy to manage its use constructively appears compelling. Some "funds" should come from the producers, in the form of hauling and making lands available; from the state in which it has been produced, in the form of making land available and supporting rehabilitation/demonstration projects. A Federal subsidy would make up shortfalls. This incentive would be provided by states and the Federal government to further environmental protection.

The Corps construction expertise can make implementation of a nationwide sludge management program possible. The Corps also has sufficient agronomy capability to direct the agronomic aspects in cooperation with other Federal and State agencies. Coordination will be needed between participating sludge producers, States, Corps, EPA, USDA, and the Bureau of Mines.

Expanded Floodplain Information Program. -

Flood plain management planning requires an understanding of the physical, socio-economic, and environmental implications of future land use changes on flood plains and contiguous non-flood plan areas,

especially where they are undergoing extensive growth pressures. Corps studies do not currently address these concerns systematically, although a prototype procedure, involving the use of computer and modeling techniques, has been developed during the course of our pilot study on the Oconee River Basin which may merit nationwide use. This procedure is being tested and refined in nine additional pilot study areas located throughout the country.

The Corps could expand on this prototype effort by developing a mechanism to utilize the procedures nationwide to study areas not addressed elsewhere, which are experiencing insistent growth pressures. The Corps could provide information about the implications of future land use changes to State and local governments and planning authorities. The Corps organizational structure, capability and expertise is eminently well suited to handle a national program of this nature. Such studies require interdisciplinary study teams involving hydrologic and hydraulic engineers, environmentalists and economists working cooperatively with local planners.

Coordination with other Corps and outside agency programs would be effected to avoid duplicative efforts, and to share study findings germane to SCS watershed studies and to FIA flood insurance studies which enjoy a high national priority. The planners would be given an opportunity to assess identifiable implications of future land use changes on flood plains in advance of decision-making. This information



would be the key to comprehensive flood plain management planning, flood damage reduction, and consideration of the direct environmental impacts of future land use changes on floodprone areas.

Urban Environmental Improvement. -

There are more than 400 Corps small boat harbors, upwards of 700 local protection projects, and 600 navigation channels and commercial harbors in the vicinity of urban areas. The dispersal of these facilities may place the Corps in the position to provide assistance to low-income communities experiencing high unemployment. A program stressing the utilization of labor-intensive employment is possible to convert existing open spaces adjacent to the facilities we maintain in order to promote the environmental enhancement of local communities, and the extension of readily accessible urban outdoor recreation opportunities.

The program might work like this: first, the communities' needs and desires would be determined and local assurances obtained; then the Corps would proceed to fund and implement development of the available open space. A labor-intensive work force could be productively utilized to develop natural areas, wildlife (bird) sanctuaries, protected historical or archeological sites, outdoor education areas, nature walks and trails, bike trails, picnic areas, play areas for small children, and sports fields. Upon completion of the development, the lands and facilities would be turned over to the community to operate and maintain. The community would have to agree to operate and maintain the developed resource prior to construction.